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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,309	02/07/2002	Hiroshi Ito	219387US2S	7066
22850	7590	05/19/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, EDNA	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/067,309

Applicant(s)

ITO, HIROSHI

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 8-10 is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

This is in response to the Amendment dated April 30, 2004. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Response to Arguments***

#### **Specification**

The disclosure has been objected to because of minor informalities.

The objection of disclosure has been withdrawn in view of Applicant's amendment.

#### **Claim Rejections - 35 USC § 112**

Claims **7-8 and 10** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 8 and 10, the rejection under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicant's amendment.

With respect to claim 7, the rejection under 35 U.S.C. 112, second paragraph, has been *maintained* for the following reasons:

#### **Claim 7**

line 2, "said opening" (singular) lacks antecedent basis.

It is suggested that the word "opening" be amended to the word -- openings --.

Claim Rejections - 35 USC § 103

Claim **10** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Im et al.** (US Patent Application Publication No. 2001/0001745 A1).

The rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over **Im et al.** has been withdrawn in view of Applicant's amendment.

***Response to Amendment***

***Election/Restrictions***

This application contains claims **11-20** drawn to an invention nonelected with traverse in the Provisional Election dated November 24, 2003. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Claim Rejections - 35 USC § 112***

Claim **7** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7

lines 4-5, it is unclear what is meant by "with respect to a direction in which said

mask and said mask are movable relative to each other".

***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter:

Claims **1-9** define over the prior art of record because the prior art does not teach or suggest a laser processing method for irradiating a mask with a plurality of openings formed therein with a pulsed laser, and irradiating a plurality of portions of a work to be processed with said pulse laser transmitted through said plurality of openings at the same time, said method comprising the steps of moving and setting as presently claimed, esp., wherein respective laser irradiated regions disposed adjacent to one another on said work are formed by irradiation with said pulse laser transmitted through said openings formed in positions different from one another on said mask, and boundaries of said laser irradiated regions disposed adjacent to each other contact at least each other.

Claim **10** define over the prior art of record because the prior art does not teach or suggest a laser processing method for irradiating a mask with a plurality of linear openings formed therein with a pulse laser, and irradiating a plurality of portions of a silicon film with said pulse laser transmitted through said plurality of openings at the same time, said method comprising the steps of allowing, moving, setting and polycrystallizing as presently claimed, esp., wherein setting the laser irradiated regions such

that boundaries of said laser irradiated regions disposed adjacent to each other contact each other.

The prior art does not contain any language that teaches or suggests the above.

*Im et al.* do not teach moving said mask and said work with respect to each other.

*Shoemaker et al.* teach moving said mask and said work with respect to each other and emitting said pulse laser a plurality of times (page 4, ¶ [0044] and [0048]; and Figs. 2 and 3). *Shoemaker et al.* does not teach wherein boundaries of said laser irradiated regions disposed adjacent to each other contact at least each other.

*Lau et al.* teach moving said mask and said work with respect to each other and emitting said pulse laser a plurality of times (page 3, ¶ [0039] and [0044]; and Figs. 3-5). *Lau et al.* do not teach wherein boundaries of said laser irradiated regions disposed adjacent to each other contact at least each other.

*Hamada et al.* teach moving said mask and said work with respect to each other and emitting said pulse laser a plurality of times (page 1, ¶ [0006]; and Fig. 1). *Hamada et al.* do not teach wherein boundaries of said laser irradiated regions disposed adjacent to each other contact at least each other.

*Shoemaker et al.*, and *Hamada et al.* teach laser-drilling holes. Openings are formed in positions different from one another on a mask, however, the boundaries of

the laser irradiated regions (= holes) disposed adjacent to each other are not taught to contact at least each other.

*Lau et al.* teach laser printing. Openings are formed in positions different from one another on a mask (letters "A", "B", "C", etc. in the laminated mask 1) [Fig. 1], however, the boundaries of said laser irradiated regions disposed adjacent to each other are not taught to contact at least each other.

Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claim 7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

### ***Citations***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Shoemaker et al.** (US Patent Application Publication No. 2001/0045974 A1) is cited to teach a method and apparatus for irradiating a mask with a plurality of openings formed therein with a pulse laser, and irradiating a plurality of portions of a work to be processed with said pulse laser transmitted through said plurality of openings at the same time.

**Lau et al.** (US Patent Application Publication No. 2002/0192572 A1) is cited to

teach a method and apparatus for irradiating a mask with a plurality of openings formed therein with a pulse laser, and irradiating a plurality of portions of a work to be processed with said pulse laser transmitted through said plurality of openings at the same time.

**Hamada et al.** (US Patent Application Publication No. 2003/0000930 A1) is cited to teach a method and apparatus for irradiating a mask with a plurality of openings formed therein with a pulse laser, and irradiating a plurality of portions of a work to be processed with said pulse laser transmitted through said plurality of openings at the same time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

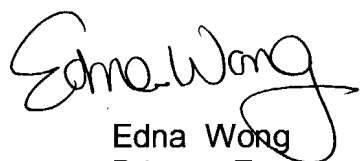
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Edna Wong  
Primary Examiner  
Art Unit 1753

EW  
May 17, 2004